

APPENDIX B

Marketing Software On The Internet

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The Challenges and Allure of Marketing Software Online

Any company thinking about selling software products on the Internet must consider what kind of online experience to create for the user and what kind of offline partnering relationship the enterprise will entail. Transferring the concerns of a traditional store to an online selling environment includes transferring the thought involved in creating the customer's shopping experience. The other side of the online retail equation is the question of how best to implement today's technology to optimize opportunity for tomorrow. In the Internet's evolving and expanding role as a worldwide marketplace, Digital River's utilization of technology has created a framework for these new relationships.

Computer software is currently being sold almost exclusively through traditional retail sales channels, principally retail stores and direct mail. The current system requires extensive inventories, expensive packaging, and significant lead time development and introduction to the market. When faced with the choice of whether to build an e-commerce solution or buy one, independent software vendors increasingly turn to Digital River's system of creating a satisfying experience for customers and a profitable experience for clients.

The Market

The exponential growth of personal computers and Internet usage has brought with it a rapid expansion in the distribution of software products. Online distribution is a logical channel for most digital products because it delivers the product directly to where the user needs it, his home or office computer. This new mode for delivery eliminates disk or CD production, packaging, returns and shipping expense and reduces the amount of time needed to get a new product on the market. One master copy of a product sitting on a central server is used to fulfill all sales of that product.

As the number of Internet users has grown this decade, so too have the number of entities providing content. As the number of these websites grows, so too does the significant number of software developers who have an Internet presence. Although there is a considerable amount of free software available for downloading, it remains difficult for independent software vendors to sell online. Creating web stores involves a prohibitive allocation and expenditure of resources, and security -- both of credit card transactions and the software itself -- is a considerable issue.

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As computer hardware prices have plummeted and competition between connectivity providers have increased, access to the Internet has become more and more affordable. As bandwidth increases, greater comfort grows with the medium, and other barriers to consumers' entry are lowered, the number of types of products delivered -- including audio and video -- will drastically increase.

Software applications and other digital products, such as images and fonts, are natural candidates for sales and delivery via the Internet. Browser programs use the equipment and systems required for software programs. Software products can be reviewed and considered online. The sale transaction can be completed online and the delivery can happen where and when the buyer needs it. The natural situation of a web browser in use makes purchasing online easy and meets consumer needs with a unique immediacy. As market research is beginning to show, it's plausible that consumers would be more likely to purchase if they are offered software products through an online purchase and delivery system.

The market research firm IDC estimated that 5-7% of all software will be sold online by the year 2000 (PC Magazine, 5/28/96, pg. 36). If current trends continue, the year 2000 should see the packaged software market over \$10 billion and could well see industry online sales over \$1 billion. Other research indicates that the current 35 million Internet users will grow to a population of 163 million by the 2000. Business-to-business commerce will also expand as the overall online commerce pie expands. Internet software sales will account for a large portion of the estimated totals. North American PC application software sales were over \$9 billion in 1995 and \$10 billion in 1996, according to the Software Publishers Association. The sale of software over the Internet to businesses could become a \$12 billion industry within the next three to five years.

Logistical Considerations

There are two areas of logistical consideration in the challenge of getting to the market. Using a technology based on open standards to sell digital products online means that one must take into account well-publicized concern about security. At the same time, the data gathered must be put to use; information that can be refined to position products where they most likely will be bought must be put in place for the system to be effective. Digital River offers a system that makes the buyers and sellers secure. Tantamount in importance to security issues are issues of the value to an overall marketing strategy of selling online.

Digital River enables the sale and download of software from thousands of sites, including a large network of independent dealers. Digital River provides the backbone system that makes e-commerce sales possible from these many distributed points of entry. In building this unique model, Digital River has recognized that availability, security, and auditability are critical, and it has therefore confronted these issues and developed its capabilities on a much greater scale than individual sites or malls have done..

Digital River has responded to these critical issues with a symbiotic combination of systems, software, and administrative processes. These capabilities ensure the continuous availability of the software products for sale and the availability of sales information into clients.

Security

Synchronized with this availability, Digital River has deployed a series of interdependent security processes that operate on several levels to ensure product security, authenticate buyers, and protect both customers and software vendors. First, firewalls prevent would-be hackers from gaining access to the software products illegally. Beyond the firewalls, these security processes use a massive amount of proprietary code written by Digital River, since no commercially available e-commerce package could meet Digital River's uniquely rigorous standards. This code is known as the Software Defense Mechanism (SDM).

After the credit card authorization, the SDM continues to protect the customer information and the software products themselves through proprietary encryption and other processes. Hackers can't get to the product download screens by experimenting with URLs for example. In addition, Digital River centralizes transactions on a single, secure server (protected by redundant backup) rather than spread across multiple servers, an approach that increases the possible points of failure for the system and the possible entry points for the hacker and thief..

Finally, every credit card transaction uses Secure Socket Layer (SSL), which encrypts transmissions from both the server and end-user sites. The encryptions use a public and private key technology that assigns an undetectable code to the end-user for data transmission to and from the server. So even if hackers might intercept these transmissions, they cannot gain any useful information.

Digital River's SDM contains many safeguards to restrict access only to bona fide buyers. For example, a person's information such as email address, mailing address, and credit card number are matched against a database of known fraud cases. A smart would-be thief might be able to spoof his IP address, but he would find it extremely difficult to spoof all the pieces of required identifying information.

The SDM accumulates information and learns about each user as it performs security profiling based on many discrete variables. So the more illegal attempts that are made, the more effectively the security system thwarts them. For example, users have only a few tries to enter their access number correctly before they are instructed to call Customer Service. Similarly, a customer cannot download software more than a preset number of times in a certain period, or buy one copy of a product and then download 500 copies. These built-in protections of the SDM also prevent spammers from shutting down the network with junk email.

The SDM continually takes network "snapshots," matching all traffic against established rules and procedures. The SDM also includes internal safeguards, protecting the software products and the customer databases from unauthorized access from within Digital River.

Availability

When customers visiting one of the many Web sites enhanced with Digital River functionality click on the product descriptions, they are transparently linked to the Digital River site. The connections to it are fast and reliable, designed to avoid frustrating delays. The software products themselves are kept on an Oracle database that is backed up daily to a safe second site, to ensure that the products are available for download 24 hours a day. Other redundant connections to credit card authorization sites assure that products are available for purchase 24 hours a day.

Besides protecting against hackers and thieves, the SDM offers security for the legitimate customers as well. For example, if a user's transmission is interrupted, or if a customer chooses to do the credit card part of the transaction offline, an "unlock code" option is presented to the user for reentry. The code matches the previous identification and allows further data exchanges.

The Consumer's Experience

Customers begin the process of buying on-line by hitting the purchase button on a client's page. There's no sensation of being suddenly hustled off to another location. Customers won't end up at some foreign-looking page where they have to hunt to find products. Prompts can be easily integrated for customers to purchase additional products, for instance printed manuals or more of your software. The entire transaction takes place in the selling environment created by the client, surrounded by the look and feel of the developer's or dealer's identity, with products presented in a way to encourage sales, with no competition.

Digital River has eliminated the need for the customer to enter their credit card and password data more than once. Less advanced e-commerce systems ask customers to enter this data more than once -- an approach that is more burdensome to the customer and offers more opportunity to the hacker. When the customer data is entered, including the credit card number, an external connection is established to validate the credit card number and authorize the transaction.

It is important to ensure that your software sales site offers products to the consumer in an interesting, user-friendly manner. The design and flow of sites should facilitate the purchasing experience. For example, "buy" buttons should be positioned and sized to make them easy to find. A shopping basket which will hold multiple products will encourage multiple sales increasing average sale size. The online sales system should hold customer information so that the buyer does not have to complete several personal information and credit card screens during the purchase. These are just a few examples of how to optimize your site. While the look and feel of a particular site is in that client's control, the client also can benefit from Digital River's considerable experience in setting up online retail environments.

Software developers and dealers who have developed online sales sites with Digital River have experienced substantial sales increases. For example, Rhode Island Software Systems credits their relationship with Digital River and the development of a comprehensive online sales and delivery system with doubling software sales from their website. Other large software developers and dealers have experienced even larger software sales increases, up to 400% of their pre-online sales and delivery business.

Cross Marketing

Digital River maintains the information gathered from customers in separate databases. Software vendors can mine the data in the databases to which they have access to gain a better understanding of their customers, but other vendors cannot get at that information except by mutual agreement. If two or more companies want to cross-sell or do some product integration, they can agree to unlock each other's database. A powerful data mining capability is matched by commensurate data security.

Digital River notifies the independent software vendors or dealers of each sale by email. And the vendors can also receive graphical and statistical analysis of their commerce activity, which turns log data into useful sales information. This information too is surrounded by rich security features, so it is delivered to authorized vendors in real time at their discretion, while preventing unauthorized access.

Digital River greatly expands the number of stores where a software product can be sold. Instead of one site, there could be 500 sites, or more. Clients need to know that they retain control over how their products are displayed and described -- in short, over the user's initial experience with their products. Digital River enables that control with product information screens that clients design and alter they see fit. Again, matching this new capability is commensurate security, to prevent unauthorized changes.

Digital River also ties out credit card receipts with its own records. Each day the Sales Summary is matched to the Credit Card Report. Summary reconciled data is entered into Digital River's accounting system. That accounting information is then matched to the daily credit card deposits on the company's bank statement. Digital River's system ensures accuracy through the cross-footing of records from internal data such as server logs with external records like credit card transactions.

Auditing and Reporting

Auditability and accuracy in reporting are ensured by a series of steps, matches, and reconciliations performed every day at critical points. For example, the Daily Sales Report as generated from transactions, is matched with the Credit Card Report, which summarizes all charges. Duplicate orders and duplicate charges are voided. Orders for physical goods on backorder, such as manuals, are suppressed until receipt of the backordered inventory. The agreement of Daily Sales Report with the Credit Card Report as adjusted is verified.

Digital River's books are audited annually by Arthur Andersen LLP. In addition, Digital River clients wishing to have their own audit of sales performed may do so according to the terms of their contract. A typical audit would use sampling techniques to test transactions and trace the flow of information among all the internal Digital River records as well as external sources such as bank statements and credit card processor statements. The auditors would then issue a report summarizing the procedures performed. In the unlikely event that sales are deemed by the auditors to have been inaccurately reported, outside the maximum established by the client contract, the auditors would proceed to quantify the difference. Digital River would then pay that difference to the client.

Internationalization

Software and digital products sales via the Internet also expand the audience of potential buyers due to the international nature of the medium. Though this is a benefit for software developers and dealers, certain risks and requirements are also inherent in conducting business on an international basis. Export controls and limitations are a primary consideration. Sales to certain nations are prohibited by the United States government. These nations include: Cuba, Iran, Iraq and others. Strict penalties can be imposed by the Federal Government for sales to non-favored nations. Additionally, international shipment of physical products requires special attention to foreign postal rates, requirements and alternate delivery means, as well as local, sales, and ad valorem taxation.

Flexible Architecture

In Digital River's business model, the possibilities for software e-commerce expand substantially, demanding a new level of availability, security, and auditability. The network infrastructure, custom coding, security systems and administrative processes that Digital River has installed work together to provide those critical elements. The anti-fraud and security aspects form an interlocking phalanx of security and accuracy, protecting against security violations, invasions of privacy, and fraud. These defenses flex and move in concert to meet threats as they emerge.

The infrastructure Digital River has put in place is highly scaleable, to support not only the current volume but the steep increases in volume that are projected for software e-commerce. In addition, Digital River stays on top of new technologies like SET, so that when they become operational and desirable to our clients and customers, Digital River will be able to deploy them quickly. The Internet is nothing if not dynamic, and as software e-commerce moves forward, vendors, dealers, and customers can be assured of a framework for sales, delivery, and payment that is safe, efficient, reliable, and accurate.

Digital River as a Partner

Once you've decided to use Digital River, you can expect service that is not only pleasant and responsive, but also a relationship that maximizes the online sales capabilities of your website. The inherent flexibility of using a relational database backend with a customizable storefront allows for timely updates to an online environment that responds immediately to a customer's decision to make a purchase.

To create the seamless transition between an existing website and Digital River's database of products, the first step is to create the look and feel of the existing website. This can be done by recreating buttons, navigable elements, and other graphics to the Digital River's site.

Once individual graphical elements are decided upon and any new pieces, like buttons for buying products, are created for the Digital River site, then a template of what the environment could look like will be created. Arrays of products are chosen for fulfillment within the look and feel of your site. These arrays can be altered to give placement to sales and promotions. The design of this environment is a critical distinction.

Because each client determines the look and feel analogously to the creation of the rest of their Internet presence there is complete control from the seller's end, and since the technology provides a portal into a relational database these arrays can be reconfigured with little more than a phone call. Putting the client in control of the site and the advertising positioning is a great distinction in e-commerce. This flexibility puts the control over coordinating other advertising and promotional vehicles where it should be: with the client. The most effective way to extend your brand onto the Internet is the way in which the potential of buying opportunities created by all of one company's marketing efforts are dovetailed together.

Integration of website advertising and sales information with other advertising media is a key to selling and delivering software and digital products online. The Internet is a unique medium that lends itself to specific types of design parameters, tone, and feel. However, it is imperative that all online advertising and promotions integrate with traditional media. Web sales sites should reflect the look and feel of a company's other advertising. Online advertising should be included under the umbrella of corporate communications, and the new advertising should support the broader message platforms and standards of the traditional advertising.

Internet advertising and promotion should support the positioning goals of the company. The Internet provides a special opportunity to present a company's brand and develop the desired positioning through multiple exposures. Long-term value of the customer supports the use of brand advertising on the Internet as well as the development of software and digital products sales sites.

There are many risks and benefits involved in selling online. Not only must one be concerned with security and accounting, but one must keep enough ahead of each incarnation of the networked marketplace to act strategically. Digital River offers the best way to implement online selling such that customers are happy, the company is effective, and profits are maximized. Not only do the products go to market today but also the architecture for the growth that will surely come from selling those products is in place for tomorrow. Digital River provides an unique opportunity for the software developer and dealer to reap the benefits of increased online sales and revenues while gaining the efficiencies of online delivery of products.